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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/822,147

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Kazuo Kuroda

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09/25/2008

NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER

PSITOS, ARISTOTELIS M

ART UNIT

PAPER NUMBER

2627

MAIL DATE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/822,147	<b>Applicant(s)</b> KURODA, KAZUO	
	<b>Examiner</b> Aristotelis M. Psitos	<b>Art Unit</b> 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,8,10-11,13,-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8,10,11 and 13-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/18/08 has been entered.

***Information Disclosure Statement***

The submitted IDS documents have been reviewed and made of record.

**Claim Grouping**

The following claim groupings are established by the examiner for referring to the art rejections below.

1 – Apparatus for recording holographic information,

a) claims 1,4,5,6

b) claims 11, 13 14.

2 – Method/s for recording holographic information,

a) claim 8, parallels the apparatus of claim 1,

b) claim 15, parallels the apparatus of claim 11.

3 – Product by process,

a) claim 10 by process of claim 8,

b) claim 16 by process of claim 15.

***Claim Rejections - 35 USC § 112***

1. Claims 1, 4-6, 8, 10, and 11, 13-16 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The limitation with respect to the rotating of the axial direction of the Fourier imager – as disclosed in paragraph 52 with respect to figure 6B of the corresponding PGPUB document 2004/0223441 A1 is critical or essential to the practice of the

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invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

As presented, all of the independent claims recite as their final wherein clause:

“ ... wherein the one-dimensional spatial modulating unit is positioned such that an alignment direction of the plurality of gratings is oblique with respect to a direction perpendicular to a moving direction of the recording medium at the irradiation position by the moving unit. “ .

However, there is no positive element recited that yields such a result in the remainder of the claim/s. As disclosed, such is provided the appropriate rotation of the Fourier imager, but is not claimed. Such positive limitation is required in order to yield the desired result.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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2. Claims 1,4,6,8,10,11,13-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ishii et al further considered with Campbell et al.

With respect to the holographic recording claims (both the apparatus, claims 1, 4, 6, and 11,13 and 14, and method claims 8 and 15;

Ishii et al discloses an optical holographic recording/reproducing apparatus/system wherein a light source, 20 is appropriated divided (by element 21), into an information signal portion and a reference beam portion - see the disclosure starting at col. 2 line 29 and continuing till the end of the document. The one-dimensional spatial modulating unit is element 27, while element 40 is the recording film - the examiner interprets such to be inherently moving and hence a moving unit must be present. The plurality of gratings is found.

As far as the examiner interprets the above independent claims:

The apparatus of group 1a, (claim 1), group 1b (claim 11) are met.

With respect to apparatus claim 11, the luminance component is interpreted as the reference beam.

With respect to the plurality of gratings has been previously addressed.

Under 102 considerations with respect to the ultimate wherein clauses of the above claims, such are considered desired functional results that MUST INHERNTLY flow/follow from the elements positively recited in the remainder of the claims.

Alternatively, if applicant can convince the examiner that such cannot follow from the elements positively recited/mapped by the above Ishii system, then under 35 USC 103 considerations, Campbell et al is cited as teaching in this environment, the ability of having a plurality of alternative embodiments for the one-dimensional Fourier imager which are

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equivalent to each other, see the discussion at paragraph 7, starting at line 52 in Campbell et al.

It would have been obvious to modify the base system of Ishii et al with the above equivalent teaching from Campbell et al since such is merely the substitution of equivalent capabilities achieving virtually similar results.

With respect to claims 4 and 13, such a capability must inherently be present. Again, These dependent claims merely recite that the modulation unit is positioned. It doesn't recite any element for doing such positioning and hence such is met either under the 102 considerations as also following from the elements positively recited, or alternatively under 103 considerations as taught by the Campbell et al system.

With respect to claims 6 and 14, the light quantity controlling capability is present, see the discussion with respect to the on, off capability of the laser light projected onto the record medium in the base reference to Ishii et al.

With respect to the parallel method claim group 2a, and 2b are met when the above system/s operate.

With respect to the product by process claims, groups 3a, and 3b, such are present when the above system performs the function.

3. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to the claims as stated in paragraph 2 above, and further in view of Satoh et al ('489).

The use of a disc as an optical record is well known and taught in this environment by Satoh et al.

It would have been obvious to modify the base system/s as relied upon above in paragraph 2 and modify such with the above noted record shape/disc taught by Satoh et al, motivation is to increase the flexibility and marketability of the final product – disc.

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4. Claims 1,3,4,5,6,8,10,11,13-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Satoh et al ("480) or ('480) or each further considered with Campbell et al.

Either of the Satoh et al documents discloses optical/holographic recording and reproducing capability, apparatus, method and final product. Wherein a light source is provided for, the beam is appropriated split, divided, and appropriate one-dimensional modulation is performed upon a disc record medium.

As far as the examiner interprets the above independent claims:

The apparatus of group 1a, (claim 1), group 1b (claim 11), are met.

With respect to apparatus claim 11, the luminance component is interpreted as the reference beam. The zero order beam is interpreted as the luminance beam/portion of claim 11.

With respect to the plurality of gratings has been previously addressed.

Under 102 considerations, the ultimate wherein clauses of the independent claims are inherently present/because such must inherently follow from the elements positively recited in the claims.

Alternatively, if applicant can convince the examiner that such desired results are not inherently present, then under 103 considerations, the ability of rotating the Fourier imager a preselected angle, oblique – is further taught by the Campbell et al reference – see the discussion of such in col. 7 starting at line 52.

It would have been obvious to modify the base systems of either Satoh et al reference with the above equivalent teaching from Campbell et al since such is merely the substitution of equivalent capabilities achieving virtually similar results

The method limitations of groups 2a and 2b are met when the above systems operate, while the product claims are present.

The product by process claims, groups 3a and 3b are met when the above system performs its function.

### ***Conclusion***

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee et al also discusses the rotation of the Fourier imager in this environment and can be relied upon in place of the Campbell et al reference under 103 considerations to meet the claimed limitations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thr: 6:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2627

/Aristotelis M Psitos/  
Primary Examiner, Art Unit 2627